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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,286	09/24/2003	Hongwei Wang	1875.5080000	2251
28393	7590	11/19/2004	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVE., N.W. WASHINGTON, DC 20005			EASTHOM, KARL D	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/668,286	<b>Applicant(s)</b> WANG, HONGWEI	
	<b>Examiner</b> Karl D Easthom	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(a,e) as being anticipated by Zhang.

Zhang discloses the claimed invention at Fig. 7 with switches and resistors S11, R21 forming parallel branches as claimed. In claim 4, one of the switches is always contemplated as closed if desired for a certain gain, similar to that of applicant. As an alternative to claims 2-3, see the rejection below.

3. Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Zommer.

Zommer discloses the claimed invention at Fig. 3 with the fuses P1 a type of switch and resistors R1, etc. R21 forming parallel branches as claimed. In claim 4, one of the switches is always contemplated as closed if desired for a certain gain, similar to that of applicant. For claim 5, see Ra or Rb at Fig. 3.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Jett et al. Jett discloses the claimed invention at Fig. 2 with switches 27a-27d, (25ohms at col. 9, lines 20-40)) and resistors 27a-27d forming parallel branches as claimed (and 3k ohms minimum at TABLE

1). In claims 2-3, 25ohms is two orders of magnitude less than 3000ohms. In claim 4, one of

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the switches is always contemplated as closed if desired for a certain gain, similar to that of applicant.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3 are rejected under 35 U.S.C. 102(a, b,e) as anticipated by Zhang or Zomer, or in the alternative, under 35 U.S.C. 103(a) as obvious over Zhang or Zommer, in view of Niedorff. For Zhang and the 102 alternative, in claim 2, col. 5, lines 15-20 discloses switch resistance as low or substantially insignificant. In claim 3, low means orders of magnitude, where Table 3 discloses the gain as not dependent on the switch resistance. Also, the switch resistance is  $R_s = 19.6$ , while the resistance  $R_{21} = 1001.96$  is more than 1.5 orders of magnitude, or rounded to two orders of magnitude, as disclosed at col. 4. For Zommer, in claim 2, the term “substantially insignificant” and “substantially linear” are broad so that the switch resistance meets the claim. Further, the resistance values vary from 100 to 100,000 ohms. This implies a fuse would be at most 100 ohms otherwise there would be no need for a resistor in series therewith. That is, if a fuse is 100ohms, no resistor of 100ohms is required. Hence in some embodiments, where the resistance varies from 10,000 to 100,000 ohms, and the fuse is implied to be at most 100ohms, for example, then the order of magnitude limitation of claim 3 is also met. For the 103 alternative, where the small switch resistance as related to the resistors are not explicit, or arguably are sufficiently implicit, Zhang discloses a need to obtain a small swath resistance as noted above, in order to minimize distortion, while Zommer discloses small


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resistors as noted above in series with resistors. Further, Niedorff discloses in general a need to minimize switch resistance as critical at col. 1, lines 25-36, for resistance circuits such as that of Zhang or Zommer, that depend on the resistance of each resistor, such that one of skill would recognize that the switch resistance should be much smaller than the resistance or at most 100ohms, else there would be no need to fabricate a 100ohm resistor, since the switch would be of that resistance, so that the limitations would have been obvious for the reasons noted.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (571) 272-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Karl D Easthom  
Primary Examiner  
Art Unit 2832

KDE